2

3

4

5

6

7

1

2

3

1

2

1

2

2

1

2

1

2

1

2

3

WHAT IS CLAIMED IS:

- 1. A heel surface element for a bowling shoe comprises a body defining an upper, attachment surface for attachment of the heel surface element upon a heel region of a bowling shoe and a lower, heel surface, said heel surface comprising a horseshoe-shape surface disposed for engagement upon a bowling alley approach surface during bowling motion and a center region surface spaced from contact with the bowling alley approach surface, said center region surface being defined peripherally by said horseshoe-shape surface and extending from a heel front edge towards a heel rear edge.
- 2. The heal surface element for a bowling shoe of claim 1, wherein said horseshoeshape surface tapers from a front thickness in a region adjacent said heel front edge to a second, relatively greater thickness in a region adjacent said heel rear edge.
- 3. The heel surface element for a bowling shoe of claim 1 or 2, wherein said heel front edge defines a north extending toward said heel rear edge.
- 4. The heel surface element for a bowling shoe of claim 3, wherein said center region surface narrows inwardly from said heel front edge toward said heel rear edge.
- 5. The heel surface element for a bowling shoe of claim 4, wherein said center region surface narrows curvedly.
- 6. The heel surface element for a bowling shoe of claim 4, wherein said heel surface element has a rounded front or leading edge.
- 7. The heel surface element for a bowling shoe of claim 4, wherein said horseshoeshape surface has a rounded front or leading edge.
- 8. The heel surface element for a bowling shoe of claim 4, wherein said heel surface element has a rounded front or leading edge and said horseshoe-shape surface has a rounded front or leading edge.

2

1

2

3

1

2

1

2

2

3

2

1

2

1

2

1

- 9. The heel surface element for a bowling shoe of claim 3, wherein said heel surface element has a rounded front or leading edge.
 - 10 The heel surface element for a bowling shoe of claim 3, wherein said horseshoeshape surface has a rounded front or leading edge.
 - 11. The heel surface element for a bowling shoe of claim 3, wherein said heel surface element has a rounded front or leading edge and said horseshoe-shape surface has a rounded front or leading edge.
 - 12. The heel surface element for a bowling shoe of claim 1 or 2, wherein said heel surface element has a rounded front or leading edge.
 - 13. The heel surface element for a bowling shoe of claim 1 or 2, wherein said horseshoe-shape surface has a rounded front or leading edge.
 - 14. The heel surface element for a bowling shoe of claim 1 or 2, wherein said heel surface element has a rounded front or leading edge and said horseshoe-shape surface has a rounded front or leading edge.
 - 15. The heel surface element for a bowling shoe of claim 1 or 2, wherein said center region surface narrows inwardly from said heel front edge toward said heel rear edge.
 - 16. The heel surface element for a bowling shoe of claim 15, wherein said center region surface narrows curvedly.
 - 17. The heel surface element for a bowling shoe of claim 15, wherein said heel surface element has a rounded front or leading edge.
 - 18. The heel surface element for a bowling shoe of claim 15, wherein said horseshoeshape surface has a rounded front or leading edge.

2

3

1

2

3

4

5

6

7

8

9

10

2

3

4 5

6

7

1

2

3

1



- 19. The heel surface element for a bowling shoe of claim 16, wherein said heel surface element has a rounded front or leading edge and said horseshoe-shape surface has a rounded front or leading edge.
- 20. A heel surface element for a bowling shoe comprises a body defining an upper, attachment surface for attachment of said heel surface element upon a heel region of a bowling shoe and a lower, heel surface, said heel surface comprising: a horseshoe-shape surface disposed for engagement upon a bowling alley approach surface during bowling motion and a center region surface spaced from contact with the bowling alley approach surface, said center region surface being defined peripherally by said horseshoe-shape surface and extending from a heel front edge towards a heel rear edge; said horseshoe-shape surface tapering from a front thickness in a region adjacent said heel front edge to a second, relatively greater rear thickness in a region adjacent said heel rear edge; said heel front edge defining a notch extending toward said heel rear edge; said center region surface narrowing curvedly inwardly from said heel front edge toward said heel rear edge; and said heel surface and said horseshoe-shape surface each having a rounded front or leading edge.
- 21. A bowling shoe with a heel defining a lower heel surface disposed for engagement upon a bowling alley approach surface during bowling motion, said heel surface comprising a horseshoe-shape surface disposed for engagement upon a bowling alley approach surface during bowling motion and a center region surface spaced from contact with the bowling alley approach surface, said center region surface being defined peripherally by said horseshoe-shape surface and extending from a heel front edge towards a heel rear edge.
- 22. The bowling shoe of claim 21, wherein said horseshoe-shape surface tapers from a front thickness in a region adjacent said heel front edge to a second, relatively greater thickness in a region adjacent said heel rear edge.
- 23. The bowling shoe of claim 21 or 22, wherein said heel front edge defines a notch extending toward said heel rear edge.

2

1

2

1

2

1

2

1

2

1

2

1

2

2

1

2

1

2

1

- 24. The bowling shoe of claim 23, wherein said center region surface narrows inwardly from said heel front edge toward said heel rear edge.
- 25. The bowling shoe of claim 24, wherein said center region surface narrows curvedly.
 - 26. The bowling shoe of claim 24, wherein said heel surface has a rounded front or leading edge.
 - 27. The bowling shoe of claim 24, wherein said horseshoe-shape surface has a rounded front or leading edge.
 - 28. The bowling shoe of claim 24, wherein said heel surface has a rounded front or leading edge and said horseshoe-shape surface has a rounded front or leading edge.
 - 29. The bowling shoe of claim 23, wherein said heel surface has a rounded front or leading edge.
 - 30. The bowling shoe of claim 23, wherein said horseshoe-shape surface has a rounded front or leading edge.
 - 31. The bowling shoe of claim 23, wherein said heel surface has a rounded front or leading edge and said horseshoe-shape surface has a rounded front or leading edge.
- 32. The bowling shoe of claim 21 or 22, wherein said heel surface has a rounded front or leading edge.
 - 33. The bowling shoe of claim 21 or 22, wherein said horseshoe-shape surface has a rounded front or leading edge.
 - 34. The bowling shoe of claim 21 or 22, wherein said heel surface has a rounded front or leading edge and said horseshoe-shape surface has a rounded front or leading edge.

2

1

2

1

2

1

2

1

2

6

7

8

9

10

11

12

1

- 1 \$5. The bowling shoe of claim 21 or 22, wherein said center region surface narrows inwardly from said heel front edge toward said heel rear edge.
 - 36. The bowling shoe of claim 35, wherein said center region surface narrows curvedly.
 - 37. The bowling shoe of claim 35, wherein said heel surface has a rounded front or leading edge.
 - 38. The bowling shoe of claim 35, wherein said horseshoe-shape surface has a rounded front or leading edge.
 - 39. The bowling shoe of claim 36, wherein said heel surface has a rounded front or leading edge and said horseshoe-shape surface has a rounded front or leading edge.
 - 40. A bowling shoe with a heel defining a lower heel surface disposed for engagement upon a bowling alley approach surface during bowling motion, said heel surface comprising: a horseshoe shape surface disposed for engagement upon a bowling alley approach surface during bowling motion and a center region surface spaced from contact with the bowling alley approach surface, said center region surface being defined peripherally by said horseshoe-shape surface and extending from a heel front edge towards a heel rear edge; said horseshoe-shape surface tapering from a front thickness in a region adjacent said heel front edge to a second, relatively greater rear thickness in a region adjacent said heel rear edge; said heel front edge defining a notch extending toward said heel rear edge; said center region surface narrowing curvedly inwardly from said heel front edge toward said heel rear edge; and said heel surface and said horseshoe-shape surface each having a rounded front or leading edge.
 - 41. The bowling shoe of claim 21 or 40, wherein said heel defining said heel surface is fixedly mounted.

- 42. The bowling shoe of claim 21 or 40, wherein said heel comprises a heel surface element defining said heel surface, said heel surface element being removably mounted.
 - 43. The bowling shoe of claim 42, wherein opposed surfaces of said heel and said heel surface element define cooperating elements of a hook-and-loop type fastener system.